

In Re Patent Application Serial No. 10/600,374
Claus Schendell-Gröling

Page 6

REMARKS

Applicant appreciates the attention of the Examiner to the application. The Office Action of the Examiner of July 26, 2005 has been reviewed with care in the preparation of this response. The amendment to the claims above and the following remarks are believed to be fully responsive to this action.

Applicant is submitting the above amendment to the specification to correct certain inconsistencies in the description of the invention disclosed in the application as originally filed and to correspondingly improve the clarity of the specification. The amendment replaces "FIGURE" with "FIG." or "FIGURES" with "FIGS." to maintain the identical changes made in the publication of the application (US 2004/0013992). The amendment also serves to correct an error made in the publication of the application with the printing of "front wing 1 la" for "front wing 11a" as originally presented in the filed application.

Both amendments are fully supported by the specification to the application and do not include any new matter.

Status of Claims

Claims 1-3, 7-13 and 20-22, as amended, are pending. The pending claims set forth a novel and non-obvious impact-absorbing level and method of providing impact-absorption to a level. Allowance of all pending claims is respectfully requested in view of the above amendment and the following remarks.

Claims 1-3, 5, 10-14, 16 and 20 were rejected under 35 U.S.C. §102(e) as being anticipated by Kim et al. (U.S. Patent No. 6,565,355). Claims 4, 6-9, 15, 17-19 were objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form.

The amendment above amends claims 1-2, 7-8, 11-13 and 20 and adds claims 21-22. Claims 4-6 and 14-19 have been cancelled without prejudice or disclaimer. The pending claims,

In Re Patent Application Serial No. 10/600,374
Claus Schendell-Gröling

Page 7

as amended, are not rendered unpatentable by the reference cited by the Examiner but are patentably distinguishable over such prior art.

Applicant now turns to the particular points raised by the rejections in the Office Action of July 26, 2005.

Rejection of Claims 1-3, 5, 10-14, 16 and 20 under 35 U.S.C. §102(e)

Claims 1-3, 5, 10-14, 16 and 20 were rejected under 35 U.S.C. §102(e) as being anticipated by Kim. Claims 1 and 12 are independent claims. Claims 5, 14 and 16 have been cancelled without prejudice or disclaimer. Applicant respectfully traverses the rejections of pending claims 1-3, 10-13 and 20, as amended, and asks that they be withdrawn.

Claim 1 has been amended to clarify the patentability of Applicant's novel invention. Claim 1, as amended, requires at least that the mounting aid include a sheet strip and that the sheet strip have a holding member extending from its outer surface, an abutment portion with outer and inner surfaces substantially equally spaced apart along its length, and a lug also with outer and inner surfaces substantially equally spaced apart along its length. This novel structure is missing from Kim. Anticipation requires that the identical invention to that contained in a claim be described in a single prior art reference. Richardson v. Suzuki Motor Co., 868 F.2d 1226, 9 USPQ 2d 1913 (Fed. Cir. 1989).

Kim does not disclose a mounting aid comprising a sheet strip. One skilled in the art will readily recognize that a sheet strip is a strip having the characteristics of a sheet. A sheet is by definition "a portion of something that is thin in comparison to its length and breadth."

(Webster's Ninth New Collegiate Dictionary © 1991 by Merriam-Webster Inc.) Suspension body 1 in the cited reference is not a structure showing or teaching a sheet strip within the ordinary and customary meaning given those words. The suspension body disclosed in Kim has a substantial thickness that is sufficient to provide both a fitting recess 16 large enough to substantially receive the holding member 63 of the orthopedic bracket 10 and a groove 2 large enough to have an elastic ring 3 inserted into it. (Kim at col. 5, lines 18-32). In addition, the

In Re Patent Application Serial No. 10/600,374
Claus Schendell-Gröling

Page 8

thickness of suspension body 1 is sufficient to allow recess 16 and groove 2 to be positioned substantially opposite each other and still be significantly spaced apart by the resin or plastic forming the body. (Kim at FIGS. 1a-4b and 7a-7b).

Kim also is missing a holding member extending from the outer surface of the sheet strip. The Examiner in the Office Action points to the groove 2 in the outer surface of the suspension body in the reference as disclosing the claimed holding member. The holding member in amended claim 1 is, however, a structure clearly distinct from such a feature by projecting outward from the base of the sheet strip.

Amended claim 1 further requires the sheet strip to have an abutment portion forward of the holding member and a lug rear of the holding member, each portion substantially presenting outer and inner surfaces equally spaced apart. Suspension body 1 in Kim, in contrast to the sheet strip in the present application, has an inner surface 12 with a concave contour so that the outer surface of the molding spacer 5 can be received so that body 1 can be securely and fittingly positioned upon the spacer. (Kim at col. 5, lines 39-51). Moreover, not only the contoured inner surface of body 1 but also its fitting recess 16 insure that its outer and inner surfaces are not equally spaced apart forward from and to the rear of groove 2.

Absent at least these features, the mounting aid in amended claim 1 is not anticipated by Kim. Claims 2, 3, 10 and 11 are dependent from claim 1. Applicant respectfully asks that amended claim 1 and each of the claims that depend from it now be allowed.

Claim 2, as amended, adds the limitation that the abutment portion have a front edge extending between its outer and inner surfaces and a tongue extending from that edge. Amended claim 2 further requires that the edge be adapted to be received within an undercut beneath the frame of the orthodontic bracket and the tongue be adapted to extend through a gap defined by the frame so that it engages the frame from above. Although the Examiner points to recess 16 in Kim as teaching the claimed edge, any edge of suspension body 1 abutting bracket 10 fails to extend between the outer and inner surfaces of that body. Moreover, no edge abutting bracket 10 is ever received within any undercut beneath holding member 63 or hook 65. (Kim at FIG. 3). In

In Re Patent Application Serial No. 10/600,374
Claus Schendell-Gröling

Page 9

addition, suspension body 1 is missing any structure that teaches or suggests a tongue extending from such an edge that is also shown extending through a gap in the frame of bracket 10.

For these additional reasons, Applicant believes that the specific rejection of claim 2 has been traversed by amendment and that it and any claim depending from it are now in position for allowance.

Claim 10 requires the lug of the sheet strip to have a plurality of projections as seen in FIGS. 1 and 2 of the application. These projections improve the anchoring of the lug within the acrylic resin forming the small cap. The small cap fits over the tooth and serves with the mounting aid embedded within it as a mounting gauge for the attachment of the bracket at a predetermined position on the tooth. In the Office Action, the Examiner points to the molding spacer 5 as disclosing this feature on the suspension body 1. Molding spacer 5 forms, however, no part of suspension body 1, being made to fit over the top of the tooth and then to have the body placed on top of it. Since this claimed element is therefore neither described nor disclosed by Kim, claim 10 should also be specifically allowed.

Claim 11, as amended, adds the element that the lug include a narrow proximal portion having side edges and a widened distal end extending orthogonally outward from the side edges. No such element is taught or suggested by Kim and is clearly not shown in any of the reference's drawings of the claimed apparatus or of the suspension body in particular. For these additional reasons, Applicant requests that the specific rejection of claim 11 also be withdrawn.

Independent claim 12 has been amended to clarify and broaden its patentability. Claim 12 requires that the claimed mounting aid include a sheet strip. As discussed above with respect to the allowance of amended claim 1, no sheet strip is described or disclosed in the reference cited by the Examiner as anticipating this claim. The suspension body 1 in Kim has all of the appearances of an article produced by mold casting. This is distinct from a sheet strip which has the capacity of being manufactured both efficiently and inexpensively from a sheet of material by a more simple punching process. Since Kim lacks the sheet strip required of the novel mounting aid described in amended claim 12, Applicant believes that the rejection of claim 12 has been

In Re Patent Application Serial No. 10/600,374
Claus Schendell-Gröling

Page 10

traversed and asks that it and dependent claims 13 and 20 now be allowed.

Amended claim 20 adds the limitation that the lug have both a plurality of projections and a widened end provided with a hole. Kim fails to disclose a structure having these features. As discussed above with respect to the allowance of claim 10, the suspension body 1 pointed to by the Examiner as disclosing the sheet strip is missing any projections. Moreover, even if the end of the suspension body distal from the bracket is in fact widened (although, contrary to the Office Action, this is not clearly shown in FIGS. 2a-2b), this portion of the body is certainly absent any hole. For each of these reasons, Applicant asks specifically that amended claim 20 be allowed.

Objections to Claims 4, 6-9, 15 and 17-19

Applicant appreciates the indication of allowable subject matter in claims 4, 6-9, 15 and 17-19. Claims 21 and 22 are new independent claims. Claim 21 rewrites claim 4 in independent form by combining its limitations with those of claims 1 and 2 from which it depends. Claim 22 rewrites claim 6 in independent form by combining its limitations with those of claim 1 from which it depends. Claims 7-9 now depend from independent claim 22. Claims 4, 6, 15 and 17-19 have been cancelled without prejudice or disclaimer.

Conclusion

Applicant's invention, as set forth in the pending claims, represents a highly useful advance in the field of orthodontics. Applicant believes that each of the claims 1-3, 7-13 and 20-22, as amended, have elements not disclosed or suggested in the prior art. Applicant respectfully submits that all rejections and objections in the Office Action have been traversed by amendment and argument, placing the application in condition for allowance.

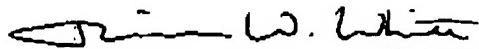
Early favorable action is earnestly solicited. The Examiner is invited to call the undersigned if such would be helpful in resolving any issue that may remain. A one-month extension request is attached. Please debit Deposit Account 10-0270 for a one-month extension

In Re Patent Application Serial No. 10/600,374
Claus Schendell-Gröling

Page 11

fee. If any additional fees are due, please debit Deposit Account 10-0270 and inform the undersigned.

Respectfully submitted,



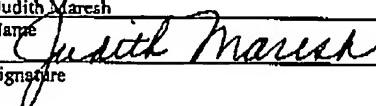
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